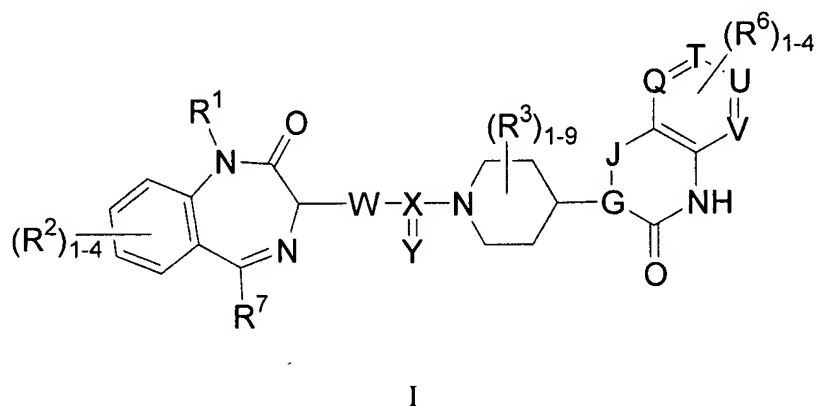


Listing of the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A ~~compounds~~ compound of formula I:



wherein:

R^1 is selected from:

- 1) H, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, and heterocycle, unsubstituted or substituted with one or more substituents independently selected from:
 - a) C₁-C₆ alkyl,
 - b) C₃-C₆ cycloalkyl,
 - c) aryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴,
 - d) heteroaryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴,
 - e) heterocycle, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴,
 - f) (F)_pC₁₋₃ alkyl,
 - g) halogen,
 - h) OR⁴,
 - i) O(CH₂)_s OR⁴,
 - j) CO₂R⁴,
 - k) (CO)NR¹⁰R¹¹.

- l) $\text{O}(\text{CO})\text{NR}^{10}\text{R}^{11}$,
 - m) $\text{N}(\text{R}^4)(\text{CO})\text{NR}^{10}\text{R}^{11}$,
 - n) $\text{N}(\text{R}^{10})(\text{CO})\text{R}^{11}$,
 - o) $\text{N}(\text{R}^{10})(\text{CO})\text{OR}^{11}$,
 - p) $\text{SO}_2\text{NR}^{10}\text{R}^{11}$,
 - q) $\text{N}(\text{R}^{10})\text{SO}_2\text{R}^{11}$,
 - r) $\text{S}(\text{O})_m\text{R}^{10}$,
 - s) CN ,
 - t) $\text{NR}^{10}\text{R}^{11}$,
 - u) $\text{N}(\text{R}^{10})(\text{CO})\text{NR}^4\text{R}^{11}$, and
 - v) $\text{O}(\text{CO})\text{R}^4$; and
- 2) aryl or heteroaryl, unsubstituted or substituted with one or more substituents independently selected from:
- a) C_{1-6} alkyl,
 - b) C_{3-6} cycloalkyl,
 - c) aryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R^4 ,
 - d) heteroaryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R^4 ,
 - e) heterocycle, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R^4 ,
 - f) $(\text{F})_p\text{C}_{1-3}$ alkyl,
 - g) halogen,
 - h) OR^4 ,
 - i) $\text{O}(\text{CH}_2)_s\text{OR}^4$,
 - j) CO_2R^4 ,
 - k) $(\text{CO})\text{NR}^{10}\text{R}^{11}$,
 - l) $\text{O}(\text{CO})\text{NR}^{10}\text{R}^{11}$,
 - m) $\text{N}(\text{R}^4)(\text{CO})\text{NR}^{10}\text{R}^{11}$,
 - n) $\text{N}(\text{R}^{10})(\text{CO})\text{R}^{11}$,
 - o) $\text{N}(\text{R}^{10})(\text{CO})\text{OR}^{11}$,
 - p) $\text{SO}_2\text{NR}^{10}\text{R}^{11}$,
 - q) $\text{N}(\text{R}^{10})\text{SO}_2\text{R}^{11}$,
 - r) $\text{S}(\text{O})_m\text{R}^{10}$,
 - s) CN ,

- t) $\text{NR}^{10}\text{R}^{11}$,
- u) $\text{N}(\text{R}^{10})(\text{CO})\text{NR}^4\text{R}^{11}$, and
- v) $\text{O}(\text{CO})\text{R}^4$; and

R^2 is independently selected from H and:

- 1) C_{1-6} alkyl,
- 2) C_{3-6} cycloalkyl,
- 3) aryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R^4 ,
- 4) heteroaryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R^4 ,
- 5) heterocycle, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R^4 ,
- 6) $(\text{F})_p\text{C}_{1-3}$ alkyl,
- 7) halogen,
- 8) OR^4 ,
- 9) $\text{O}(\text{CH}_2)_s\text{OR}^4$,
- 10) CO_2R^4 ,
- 11) $(\text{CO})\text{NR}^{10}\text{R}^{11}$,
- 12) $\text{O}(\text{CO})\text{NR}^{10}\text{R}^{11}$,
- 13) $\text{N}(\text{R}^4)(\text{CO})\text{NR}^{10}\text{R}^{11}$,
- 14) $\text{N}(\text{R}^{10})(\text{CO})\text{R}^{11}$,
- 15) $\text{N}(\text{R}^{10})(\text{CO})\text{OR}^{11}$,
- 16) $\text{SO}_2\text{NR}^{10}\text{R}^{11}$,
- 17) $\text{N}(\text{R}^{10})\text{SO}_2\text{R}^{11}$,
- 18) $\text{S}(\text{O})_m\text{R}^{10}$,
- 19) CN ,
- 20) $\text{NR}^{10}\text{R}^{11}$,
- 21) $\text{N}(\text{R}^{10})(\text{CO})\text{NR}^4\text{R}^{11}$, and
- 22) $\text{O}(\text{CO})\text{R}^4$;

R^7 is selected from:

- 1) H, C₀-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-6 cycloalkyl and heterocycle, unsubstituted or substituted with one or more substituents independently selected from:
- a) C₁₋₆ alkyl,
 - b) C₃₋₆ cycloalkyl,
 - c) aryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴,
 - d) heteroaryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴,
 - e) heterocycle, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴,
 - f) (F)_pC₁₋₃ alkyl,
 - g) halogen,
 - h) OR⁴,
 - i) O(CH₂)_sOR⁴,
 - j) CO₂R⁴,
 - k) (CO)NR¹⁰R¹¹,
 - l) O(CO)NR¹⁰R¹¹,
 - m) N(R⁴)(CO)NR¹⁰R¹¹,
 - n) N(R¹⁰)(CO)R¹¹,
 - o) N(R¹⁰)(CO)OR¹¹,
 - p) SO₂NR¹⁰R¹¹,
 - q) N(R¹⁰) SO₂R¹¹,
 - r) S(O)_mR¹⁰,
 - s) CN,
 - t) NR¹⁰R¹¹,
 - u) N(R¹⁰)(CO)NR⁴R¹¹,
 - v) O(CO)R⁴; and
- 2) aryl or heteroaryl, unsubstituted or substituted with one or more substituents independently selected from:
- a) C₁₋₆ alkyl,
 - b) C₃₋₆ cycloalkyl,
 - c) aryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴,
 - d) heteroaryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴,

- e) heterocycle, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R^4 ,
- f) $(F)_pC_{1-3}$ alkyl,
- g) halogen,
- h) OR^4 ,
- i) $O(CH_2)_5OR^4$,
- j) CO_2R^4 ,
- k) $(CO)NR^{10}R^{11}$,
- l) $O(CO)NR^{10}R^{11}$,
- m) $N(R^4)(CO)NR^{10}R^{11}$,
- n) $N(R^{10})(CO)R^{11}$,
- o) $N(R^{10})(CO)OR^{11}$,
- p) $SO_2NR^{10}R^{11}$,
- q) $N(R^{10})SO_2R^{11}$,
- r) $S(O)_mR^{10}$,
- s) CN,
- t) $NR^{10}R^{11}$,
- u) $N(R^{10})(CO)NR^4R^{11}$, and
- v) $O(CO)R^4$;

R^4 is selected from: H, C_{1-6} alkyl, $(F)_pC_{1-6}$ alkyl, C_{3-6} cycloalkyl, aryl, heteroaryl and benzyl, unsubstituted or substituted with halogen, hydroxy or C_{1-6} alkoxy;

R^5 is independently selected from H, substituted or unsubstituted C_{1-6} alkyl, C_{3-6} cycloalkyl, aryl, heteroaryl, OR^4 , $N(R^4)_2$, CO_2R^4 and $(F)_pC_{1-6}$ alkyl;

W is O, NR^4 or $C(R^4)_2$;

X is C or S;

Y is O, $(R^4)_2$, NCN, NSO_2CH_3 or $NCONH_2$, or Y is O_2 when X is S;

R^3 is independently selected from H, substituted or unsubstituted C_{1-3} alkyl, CN and CO_2R^4 ;

R^6 is independently selected from H and:

- a) C₁₋₆ alkyl,
- b) C₃₋₆ cycloalkyl,
- c) aryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴,
- d) heteroaryl, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴,
- e) heterocycle, unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴,
- f) (F)_pC₁₋₃ alkyl,
- g) halogen,
- h) OR⁴,
- i) O(CH₂)₅OR⁴,
- j) CO₂R⁴,
- k) (CO)NR¹⁰R¹¹,
- l) O(CO)NR¹⁰R¹¹,
- m) N(R⁴)(CO)NR¹⁰R¹¹,
- n) N(R¹⁰)(CO)R¹¹,
- o) N(R¹⁰)(CO)OR¹¹,
- p) SO₂NR¹⁰R¹¹,
- q) N(R¹⁰) SO₂R¹¹,
- r) S(O)_mR¹⁰,
- s) CN,
- t) NR¹⁰R¹¹,
- u) N(R¹⁰)(CO)NR⁴R¹¹, and
- v) O(CO)R⁴;

R¹⁰ and R¹¹ are independently selected from: H, C₁₋₆ alkyl, (F)_pC₁₋₆ alkyl, C₃₋₆ cycloalkyl, aryl, heteroaryl and benzyl, unsubstituted or substituted with halogen, hydroxy or C₁₋₆ alkoxy, where R¹⁰ and R¹¹ may be joined together to form a ring selected from: azetidiny, pyrrolidinyl, piperidinyl, piperazinyl and morpholinyl, which is unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from R⁴;

G-J is selected from: N, N-C(R⁵)₂, C=C(R⁵), C=N; C(R⁵), C(R⁵)-C(R⁵)₂, C(R⁵)-C(R⁵)₂-C(R⁵)₂, C=C(R⁵)-C(R⁵)₂, C(R⁵)-C(R⁵)=C(R⁵), C(R⁵)-C(R⁵)₂-N(R⁵), C=C(R⁵)-N(R⁵), C(R⁵)-C(R⁵)=N, C(R⁵)-N(R⁵)-C(R⁵)₂, C=N-C(R⁵)₂, C(R⁵)-N=C(R⁵), C(R⁵)-N(R⁵)-N(R⁵), C=N-N(R⁵), N-C(R⁵)₂-C(R⁵)₂, N-C(R⁵)=C(R⁵), N-C(R⁵)₂-N(R⁵), N-C(R⁵)=N, N-N(R⁵)-C(R⁵)₂ and N-N=C(R⁵);

Q, T, U and V are each independently a carbon atom or a nitrogen atom wherein at least one but no more than three of Q, T, U and V are nitrogen atoms, and wherein when any of Q, T, U, or V is a carbon atom it is unsubstituted or substituted where the substituents are independently selected from R^6 ;

p is 0 to $2q+1$, for a substituent with q carbons;

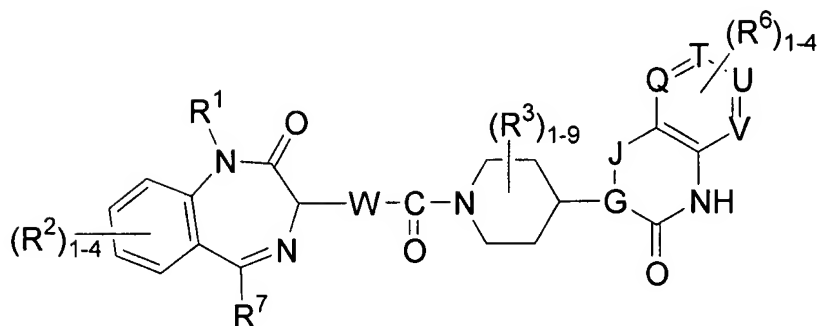
m is 0, 1 or 2;

n is 0 or 1;

s is 1, 2 or 3;

and pharmaceutically acceptable salts and individual diastereomers thereof.

2. The compound of claim 1 of the formula Ia:



and pharmaceutically acceptable salts and individual diastereomers thereof.

3. The compound of claim 2, wherein R⁷ is phenyl, unsubstituted or substituted with one or substituents independently selected from:

- a) C₁₋₆ alkyl,
- b) OH,
- c) OR⁵,
- d) halogen,
- e) CO₂R⁴,
- f) S(O)_mR⁵,
- g) N(R⁴)₂, and
- j) CN,

and pharmaceutically acceptable salts and individual diastereomers thereof.

4. The compound of claim 2, wherein R⁷ is heteroaryl, unsubstituted or substituted with one or substituents independently selected from:

- a) C₁₋₆ alkyl,
- b) OH,
- c) OR⁵,
- d) halogen,
- e) CO₂R⁴,

- f) $\text{S(O)}_m\text{R}^5$,
- g) $\text{N(R}^4)_2$, and
- j) CN ,

and pharmaceutically acceptable salts and individual diastereomers thereof.

5. The compound of claim 2, wherein R^7 is selected from H and C_1 - C_6 alkyl, C_1 - C_6 alkenyl, C_1 - C_6 alkynyl, C_3 - C_6 cycloalkyl, unsubstituted or substituted with one or substituents independently selected from:

- a) C_1 -6 alkyl,
- b) C_1 -6 alkoxy,
- c) fluorine,
- d) HO ,
- e) OR^5 ,
- f) CO_2R^4 ,
- g) $\text{CON(R}^4)_2$,
- h) $\text{S(O)}_m\text{R}^5$, and
- i) $\text{N(R}^4)_2$; and

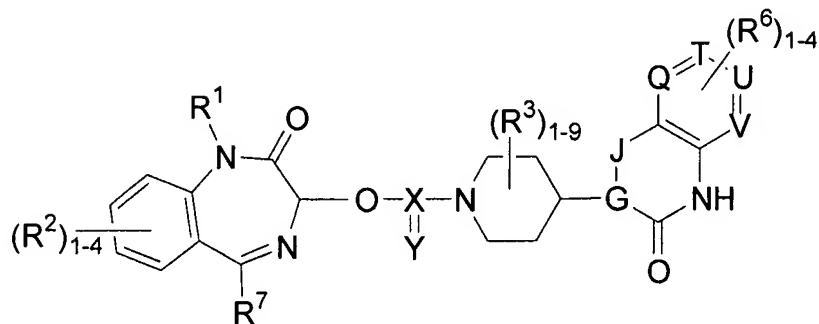
and pharmaceutically acceptable salts and individual diastereomers thereof.

6. The compound of claim 2, wherein R^7 is heterocycle, unsubstituted or substituted with one or substituents independently selected from:

- a) C_1 -6 alkyl,
- b) C_1 -6 alkoxy,
- c) fluorine,
- d) HO ,
- e) OR^5 ,
- f) CO_2R^4 ,
- g) $\text{CON(R}^4)_2$,
- h) $\text{S(O)}_m\text{R}^5$, and
- i) $\text{N(R}^4)_2$; and

and pharmaceutically acceptable salts and individual diastereomers thereof.

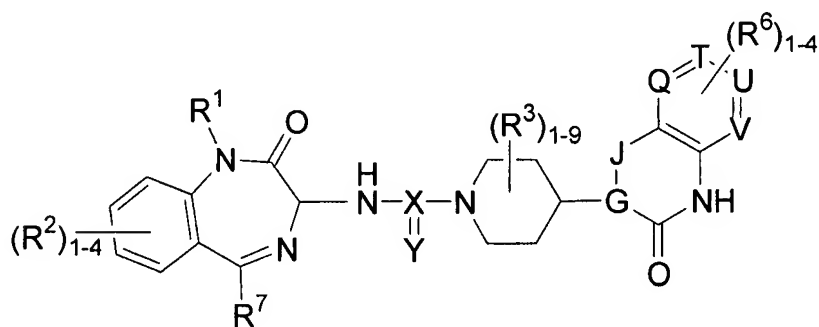
7. The compound of claim 1 of the formula Ib:



Ib

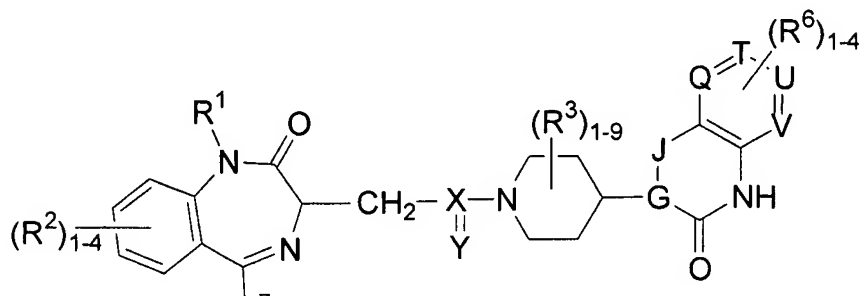
and pharmaceutically acceptable salts and individual diastereomers thereof.

8. The compound of claim 1 of the formula Ic:



Ic

and pharmaceutically acceptable salts and individual diastereomers thereof.

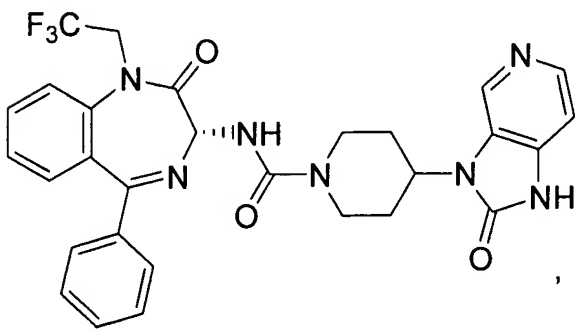
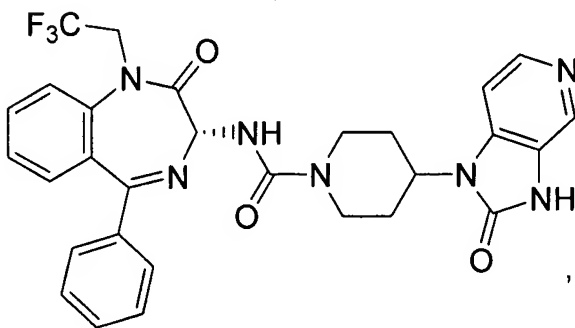
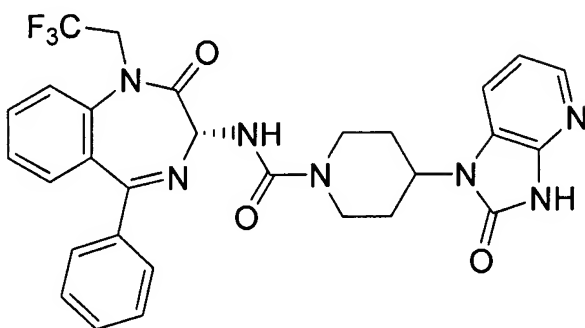


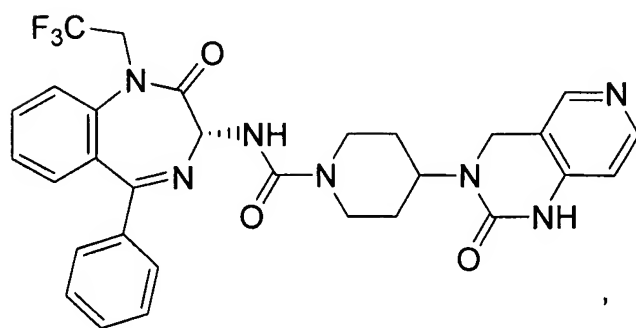
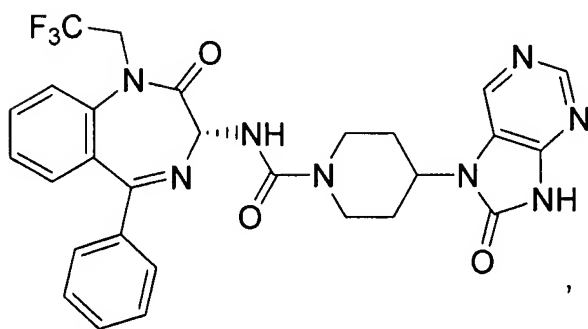
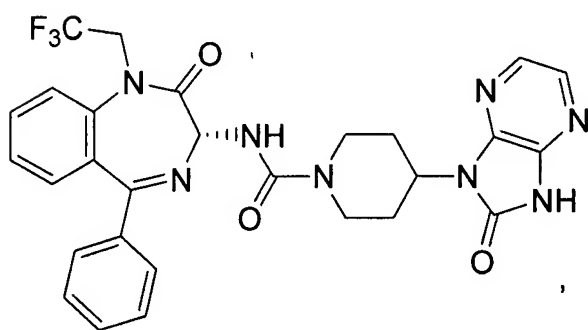
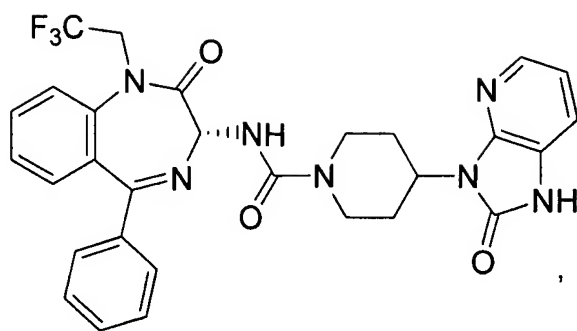
9. The compound of claim 1 of the formula Id:

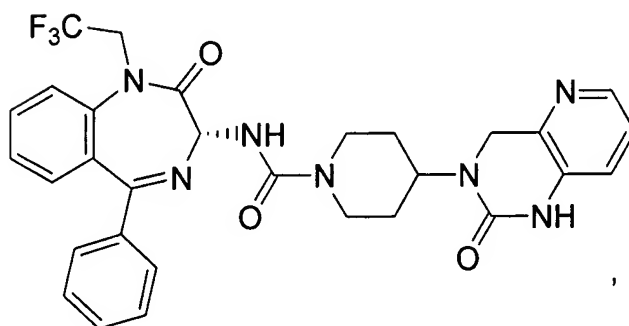
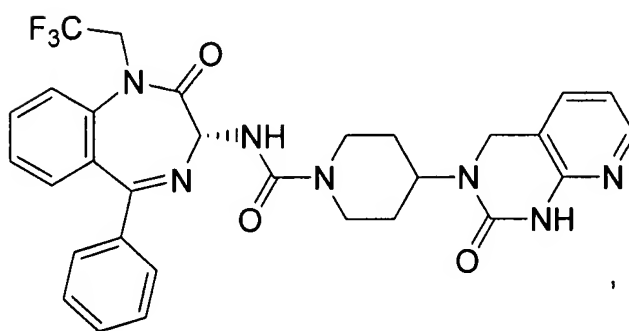
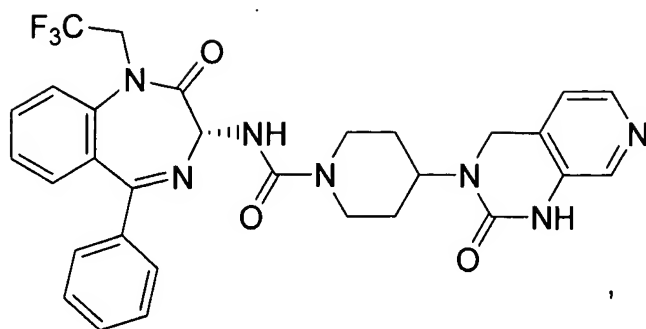
Id

and pharmaceutically acceptable salts and individual diastereomers thereof.

10. A compound selected from:







and pharmaceutically acceptable salts and individual diastereomers thereof.

11. A pharmaceutical composition which comprises an inert carrier and the compound of Claim 1.
12. A method for antagonism of CGRP receptor activity in a mammal which comprises the administration of an effective amount of the compound of Claim 1.

13. A method for treating, controlling, ameliorating or reducing the risk of headache, migraine or cluster headache in a mammalian patient in need of such which comprises administering to the patient a therapeutically effective amount of the compound of Claim 1.

14 -57. (Canceled)